



System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

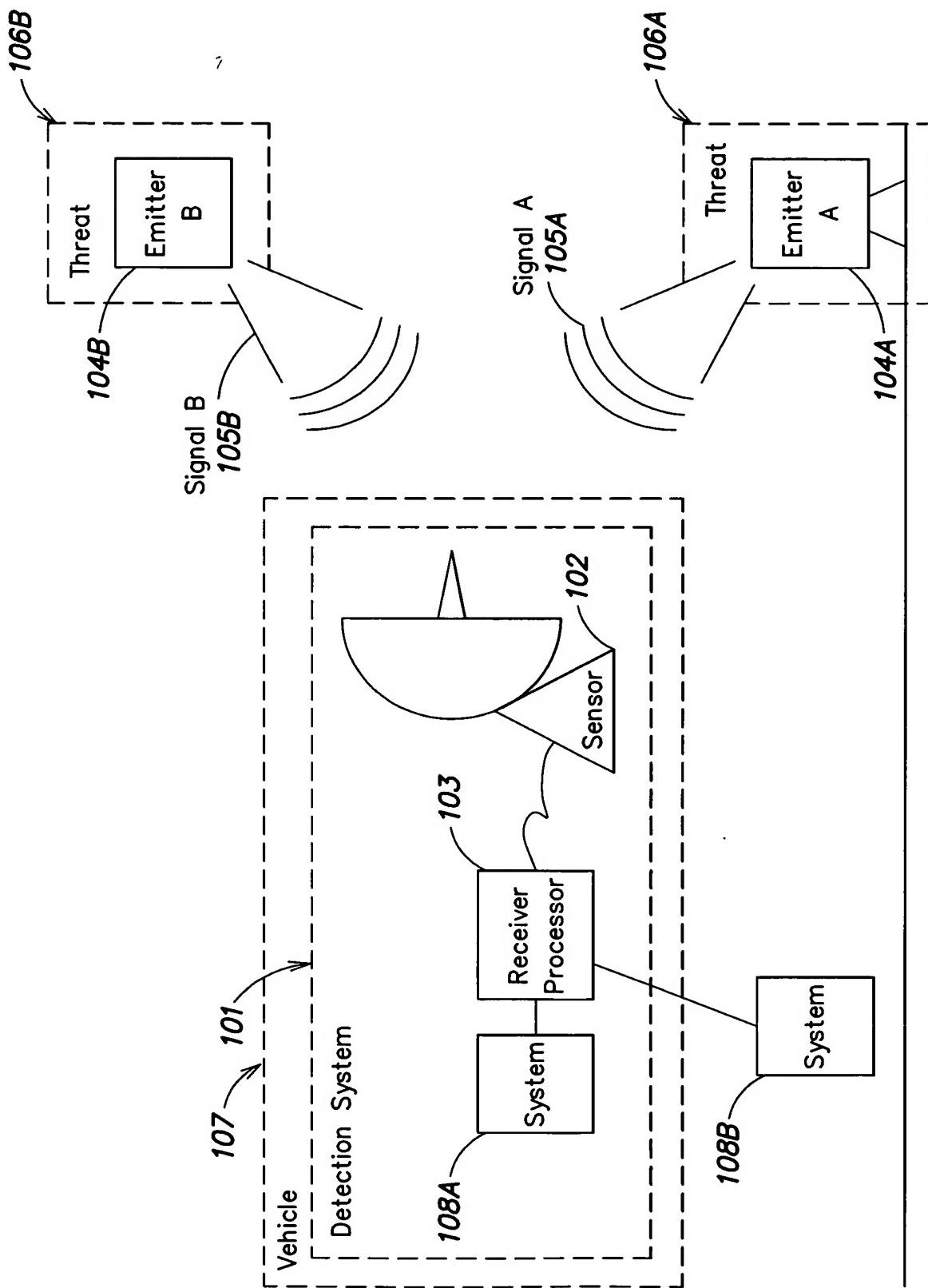


FIG. 1

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

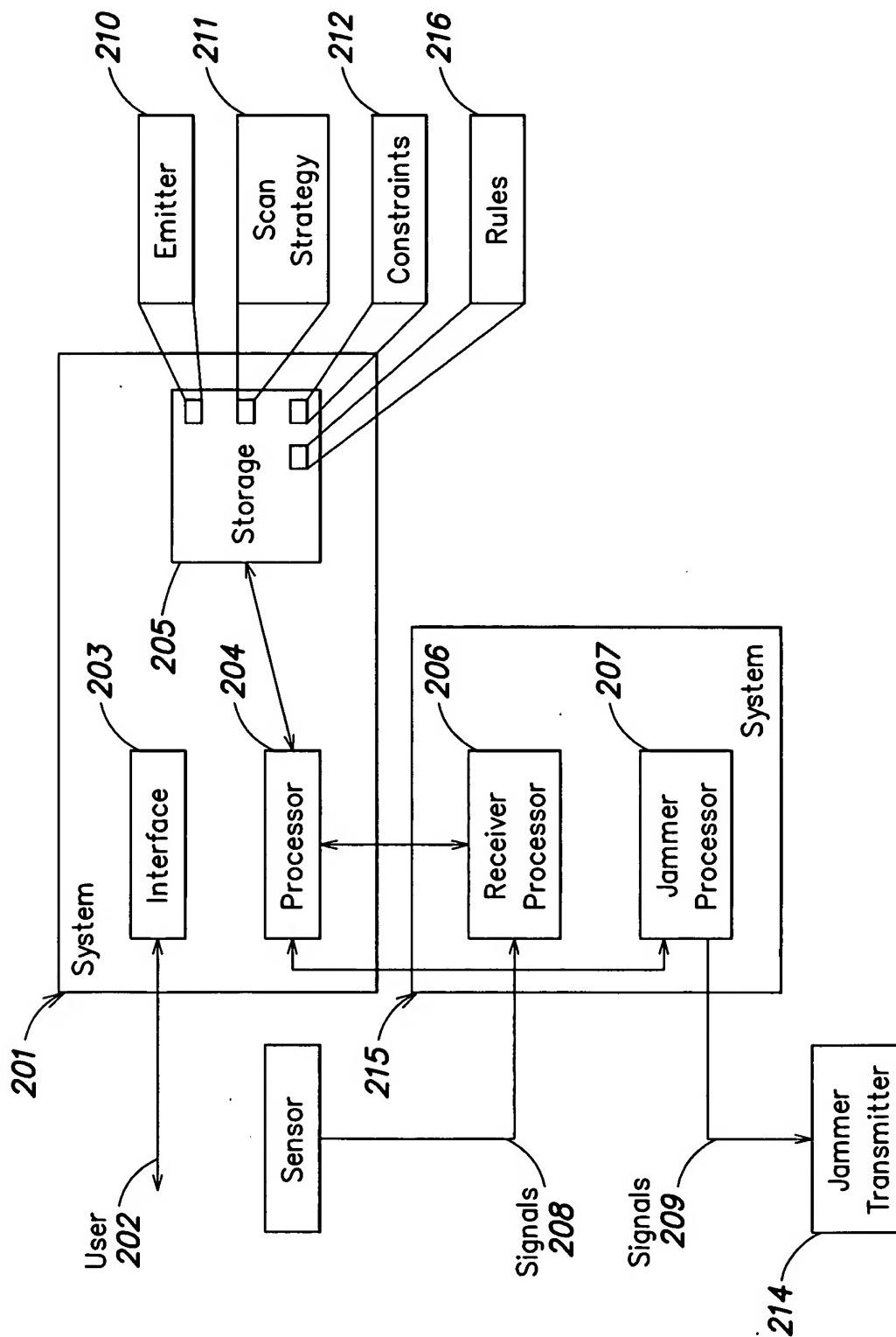


FIG. 2

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

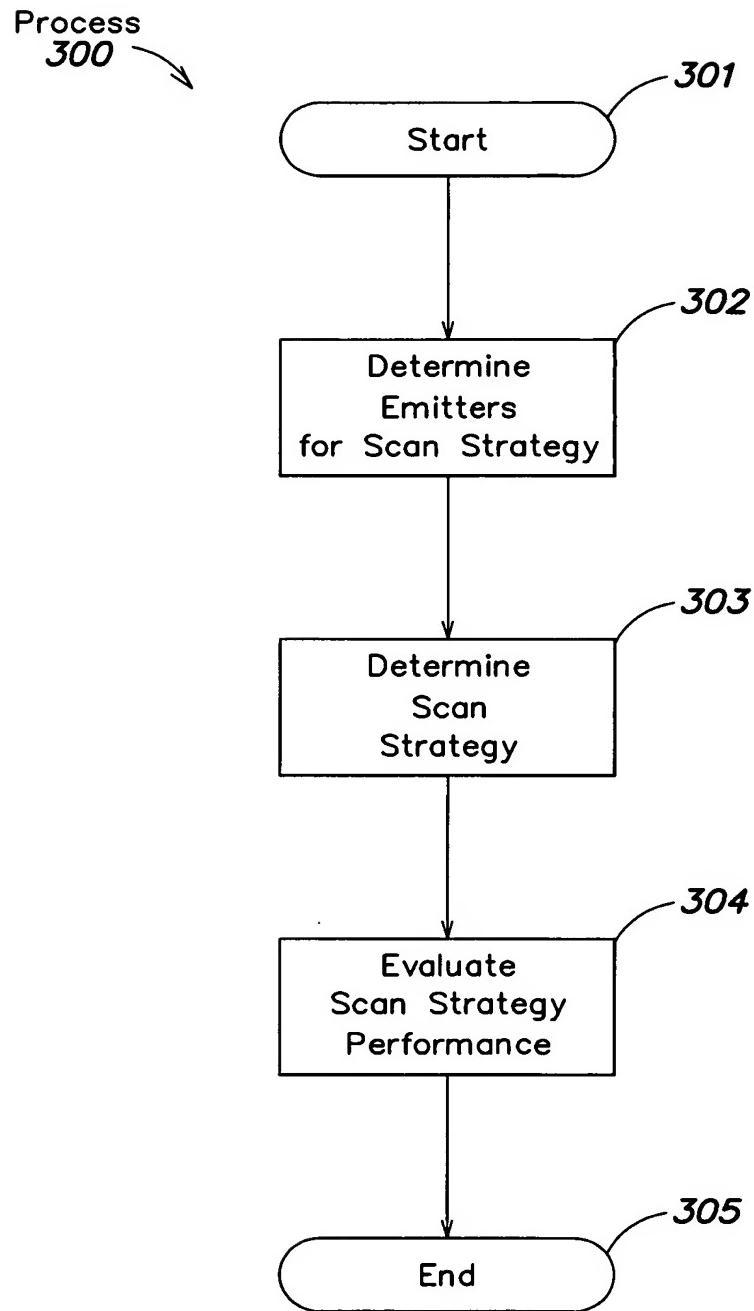


FIG. 3

**System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00**

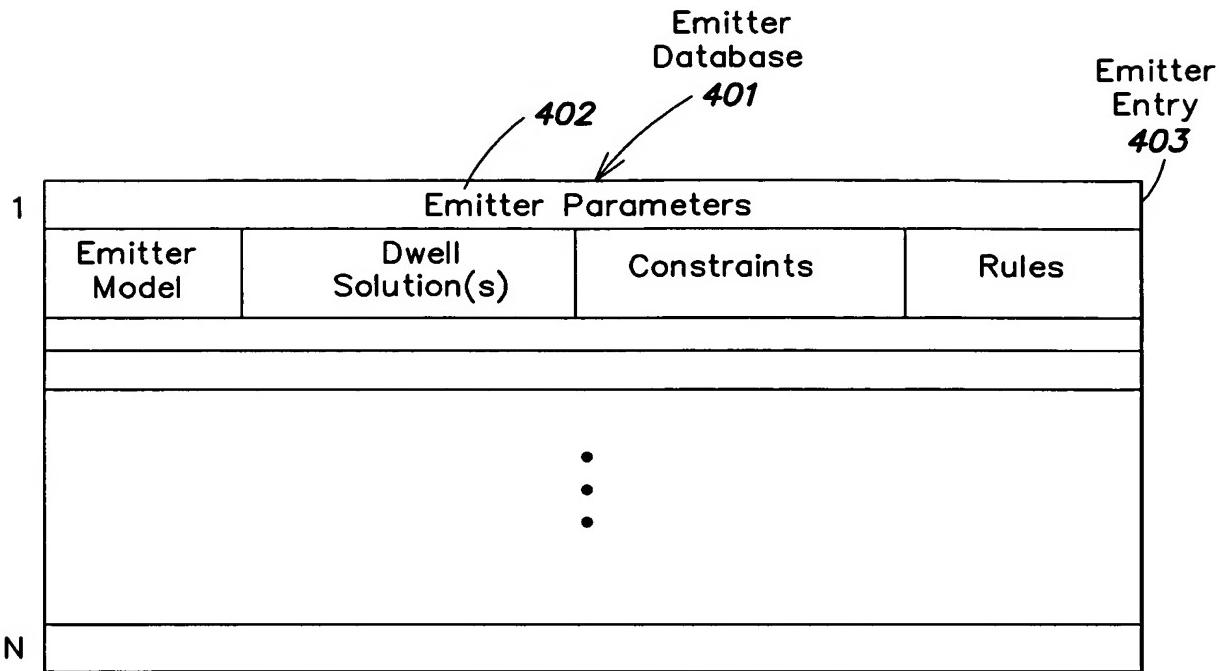


FIG. 4

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

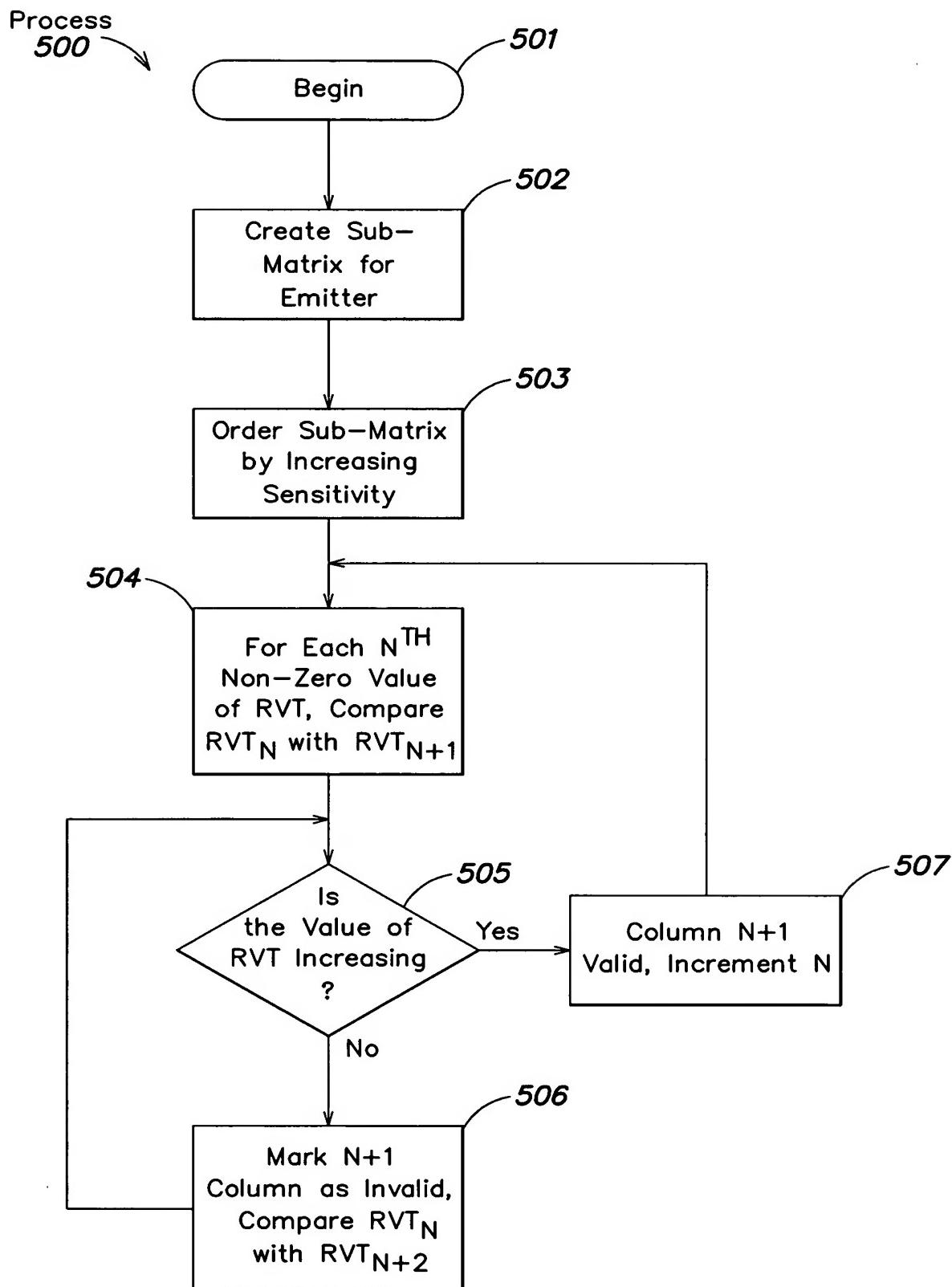


FIG. 5

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

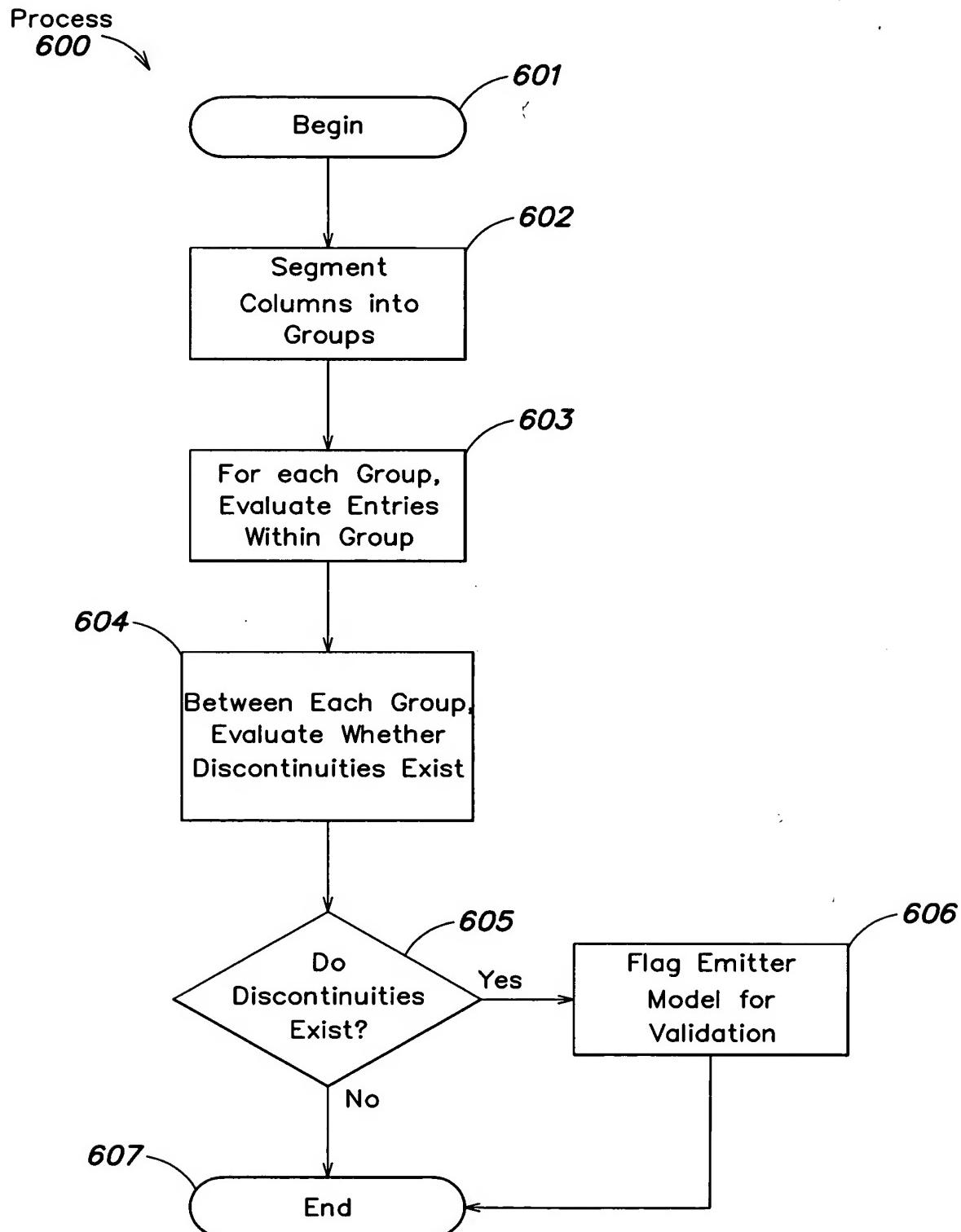


FIG. 6

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

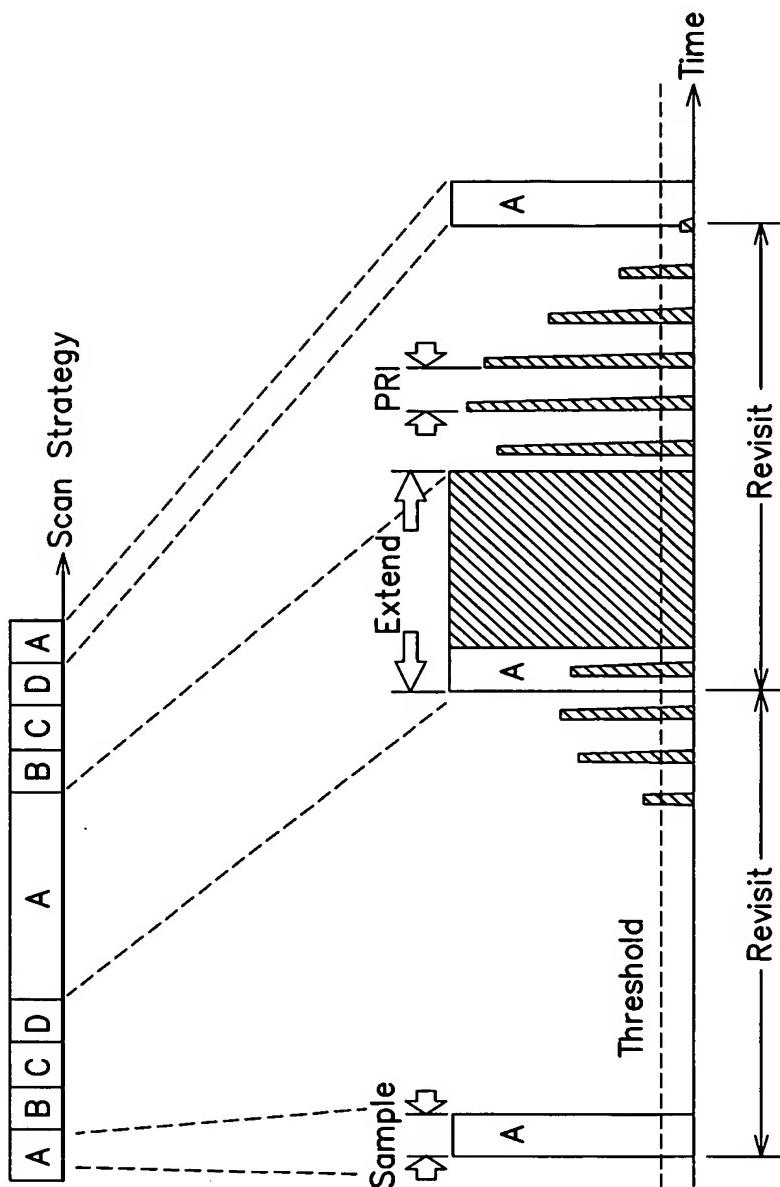


FIG. 7

NO PULSE GROUPING LOGIC:

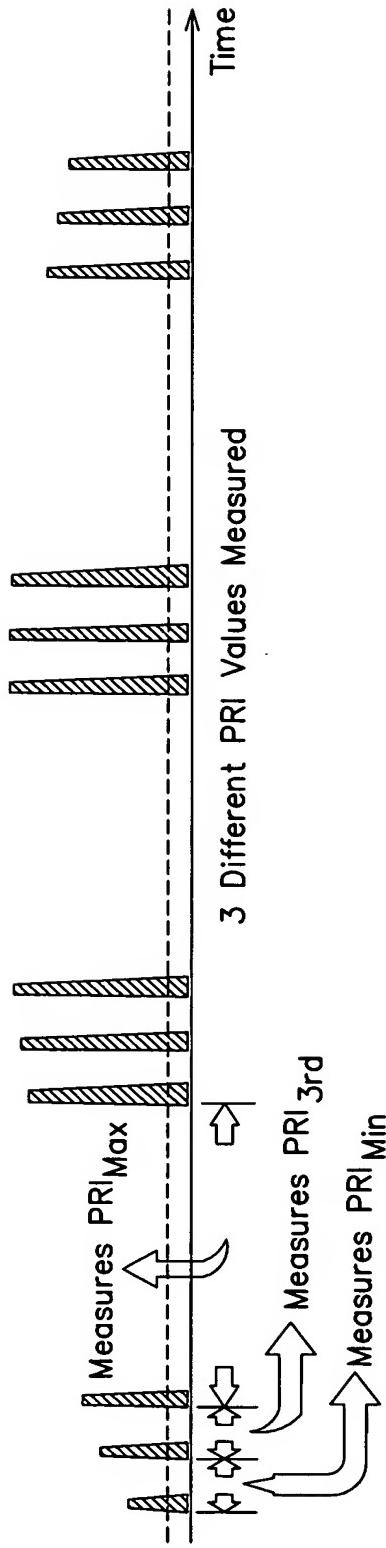


FIG. 8A

WITH PULSE GROUPING LOGIC:

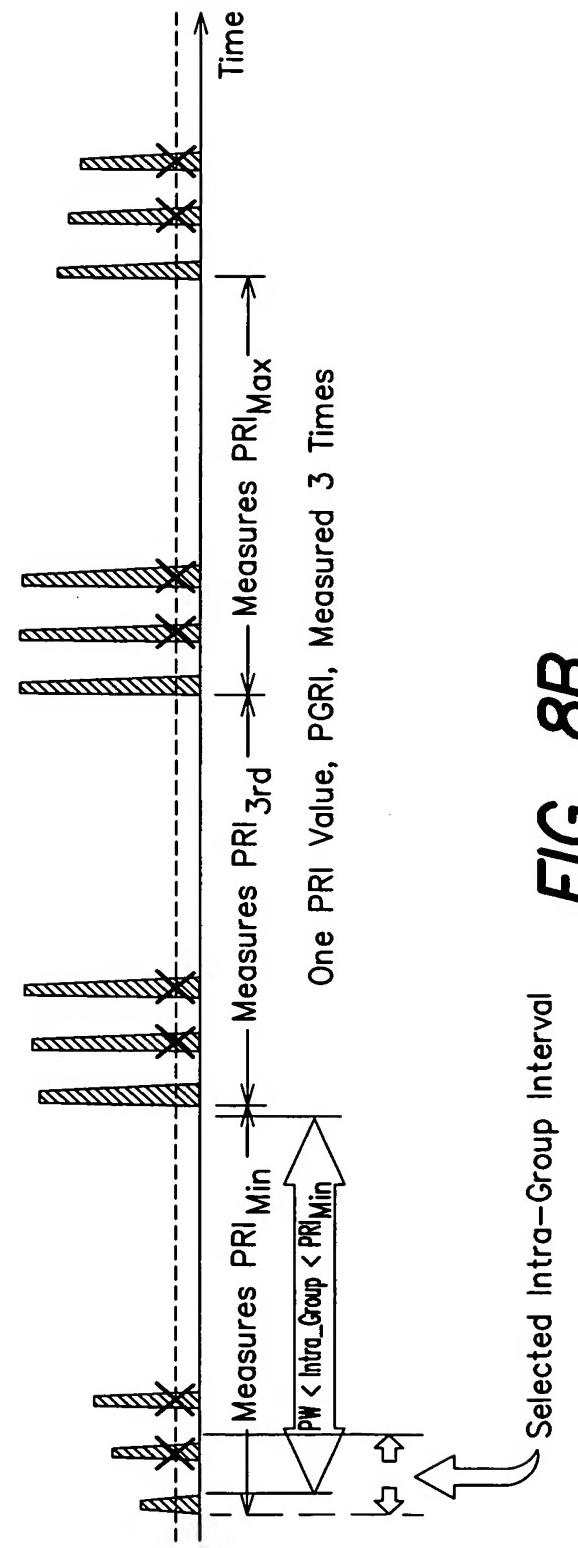


FIG. 8B

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

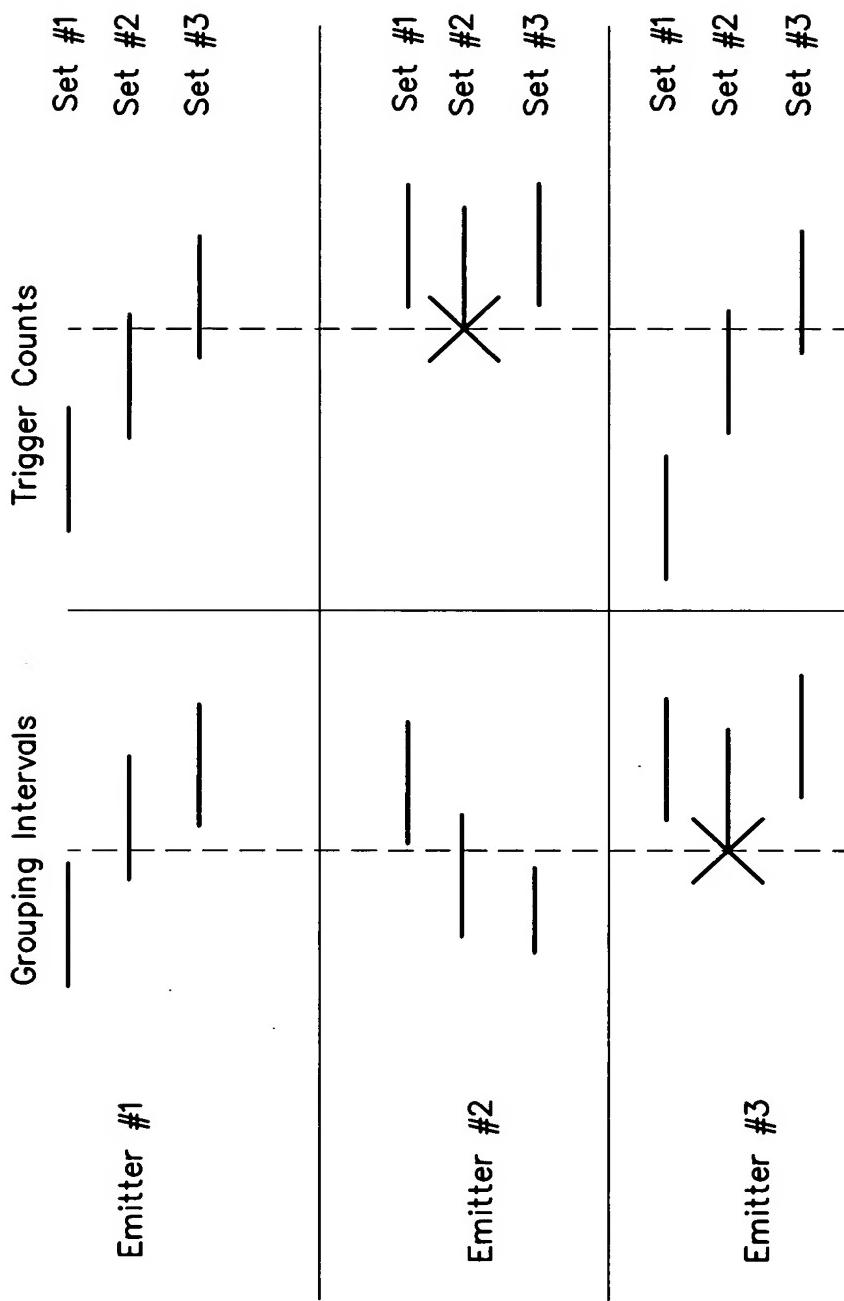
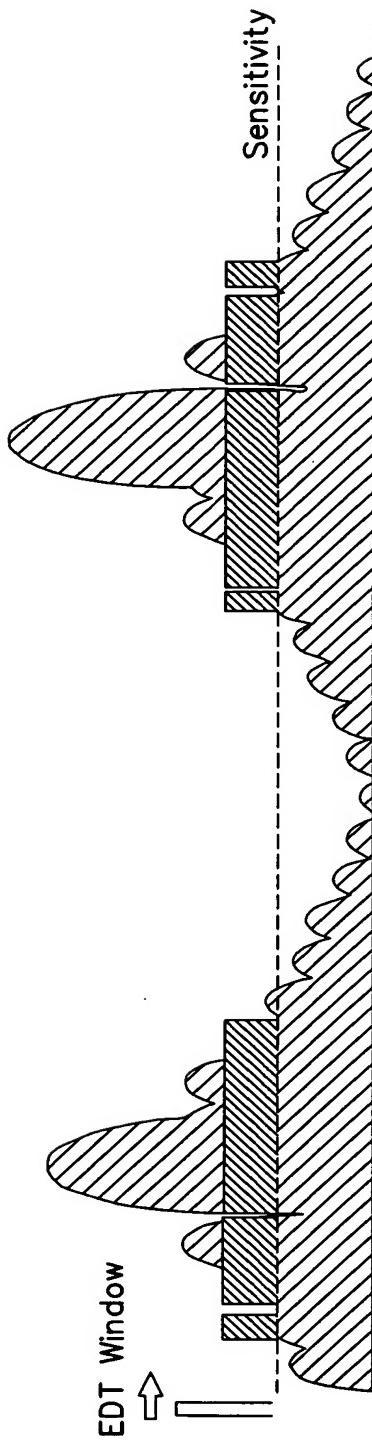
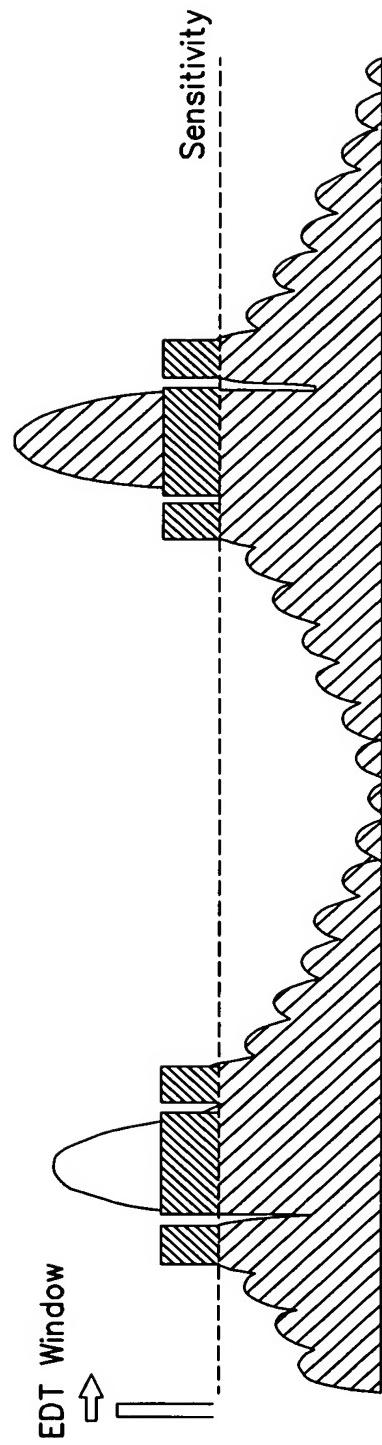


FIG. 9

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00



Discrete Illuminations (TIBS)
FIG. 10A



Discrete Illuminations (TIBS)
FIG. 10B

System And Method For Selecting A
 Receiver Hardware Configuration To Detect
 Emitter Signals
 GOUNALIS, Anthony J.
 Serial No.: 10/675,644
 Docket No.: L0562.70037US00

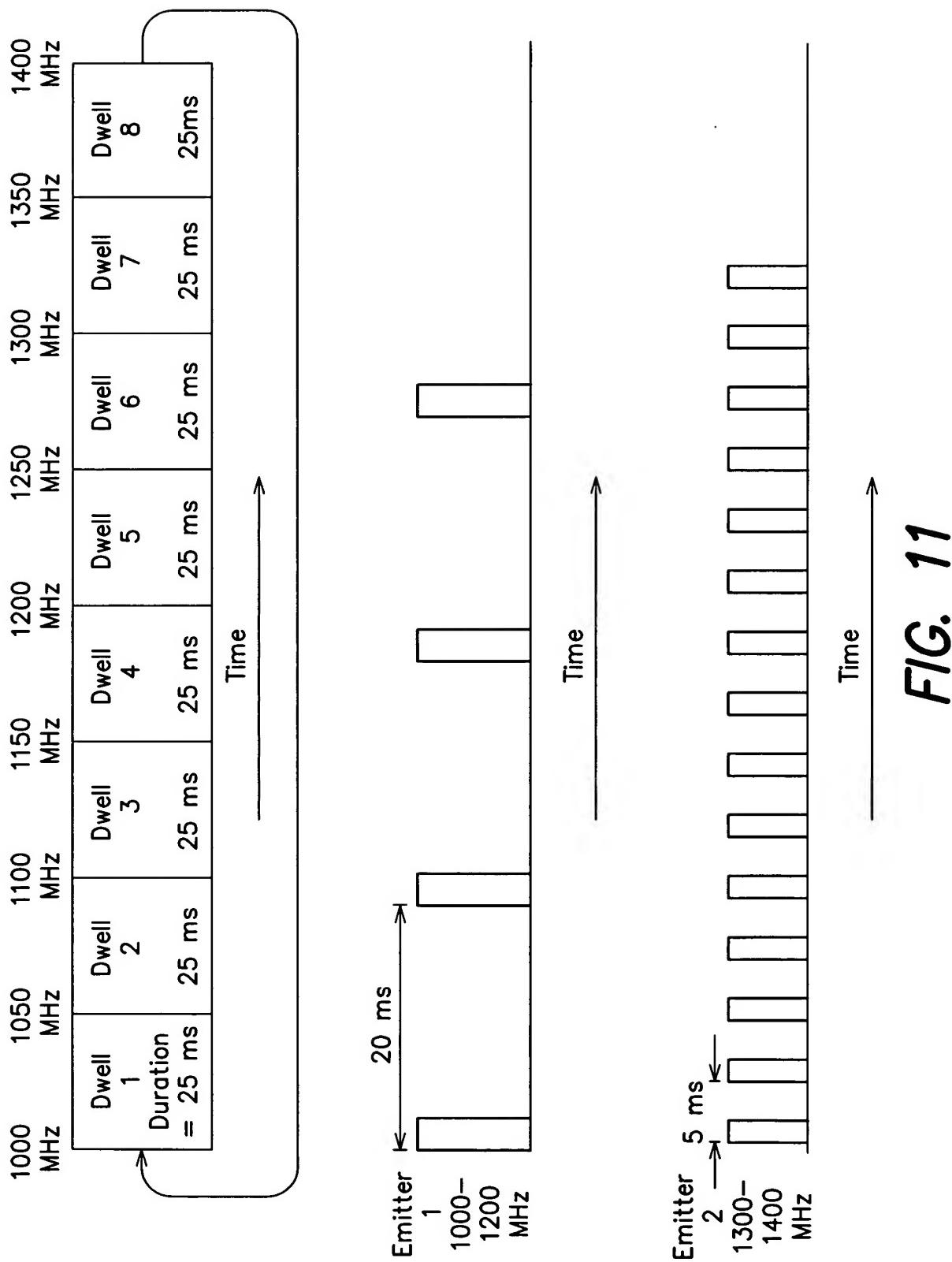


FIG. 11

**System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00**

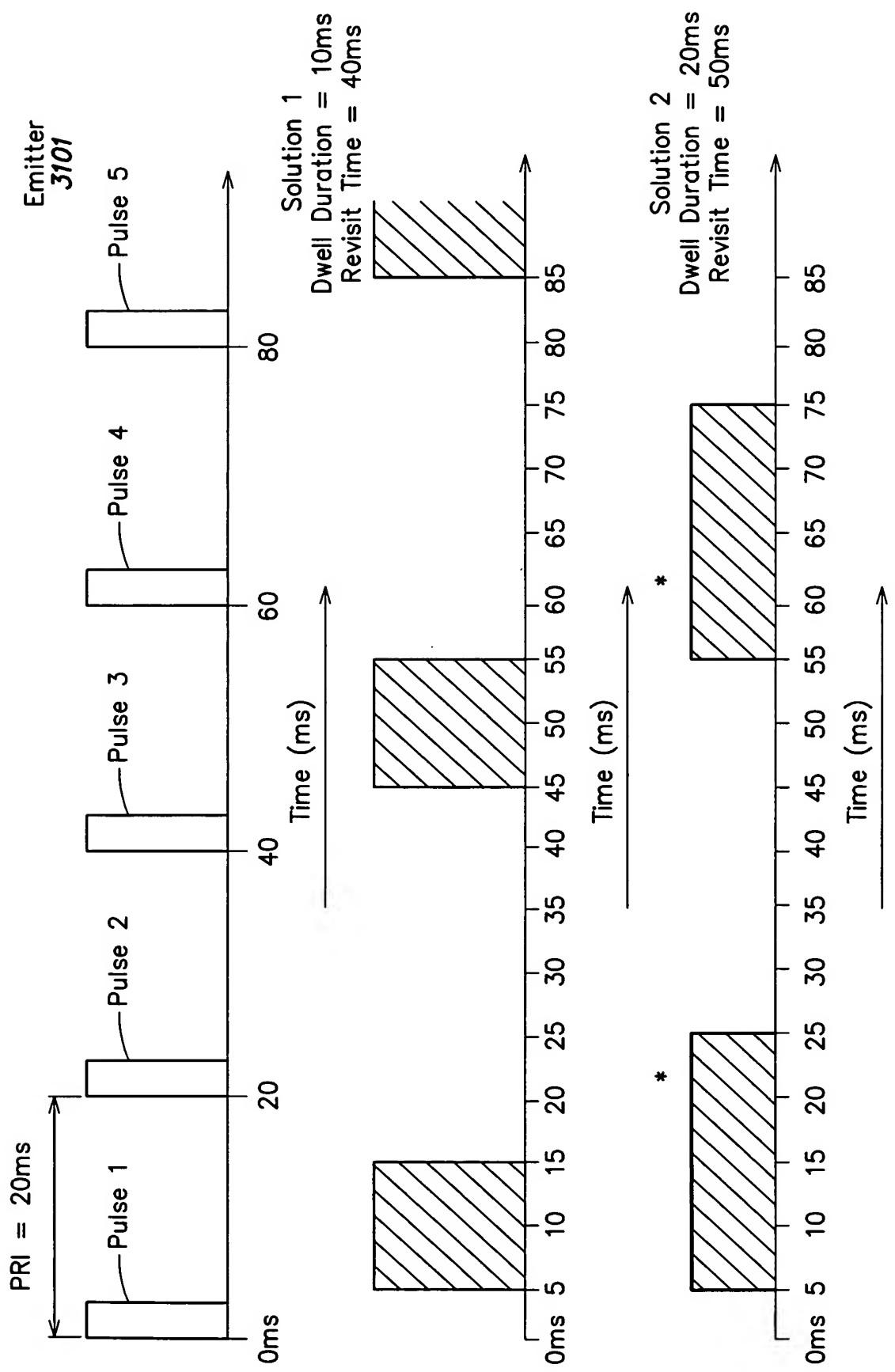


FIG. 12

**System And Method For Selecting A
 Receiver Hardware Configuration To Detect
 Emitter Signals**
GOUNALIS, Anthony J.
 Serial No.: 10/675,644
 Docket No.: L0562.70037US00

4000

Emitter Name	Detecting Method 1 250MHz IF/ 15MHz VBW RVT	Detecting Method 2 30MHz IF/ 15MHz VBW RVT	RF Min (MHz)	RF Max (MHz)	Min MDT (ms)
E1	100 ms	650 ms	1000	1300	3
E2	120 ms	780 ms	1220	1350	5
E3	110 ms	330 ms	1510	1810	2
E4	130 ms	390 ms	1730	1860	4

FIG. 13

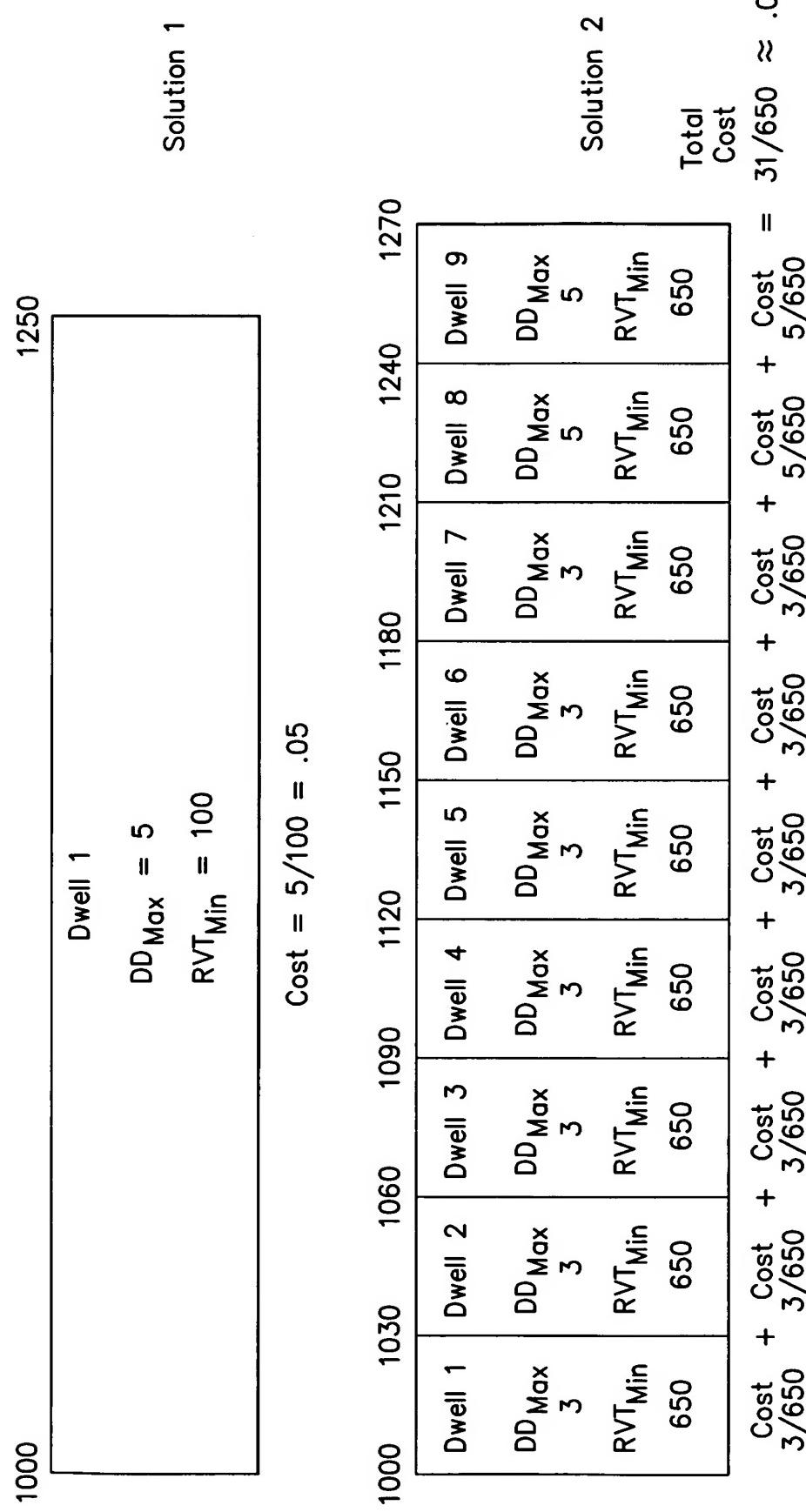


FIG. 14A

Solution 1								Solution 2							
Dwell 1	DD Max = 4 ms	RV τ Min = 330 ms						Dwell 1	DD Max = 4 ms	RV τ Min = 330 ms					
Cost = 4/330 = .012															
1510	1540	1570	1600	1630	1660	1690	1720	1750	1780						
Dwell 1	Dwell 2	Dwell 3	Dwell 4	Dwell 5	Dwell 6	Dwell 7	Dwell 8	Dwell 9							
DD Max 2	DD Max 2	DD Max 2	DD Max 2	DD Max 2	DD Max 2	DD Max 2	DD Max 4	DD Max 4							
RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms	RV τ Min 330 ms							

$\frac{\text{Cost}}{2/330} + \frac{\text{Cost}}{2/330} = \frac{22/330}{4/330} = .0\bar{6}$

FIG. 14B

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

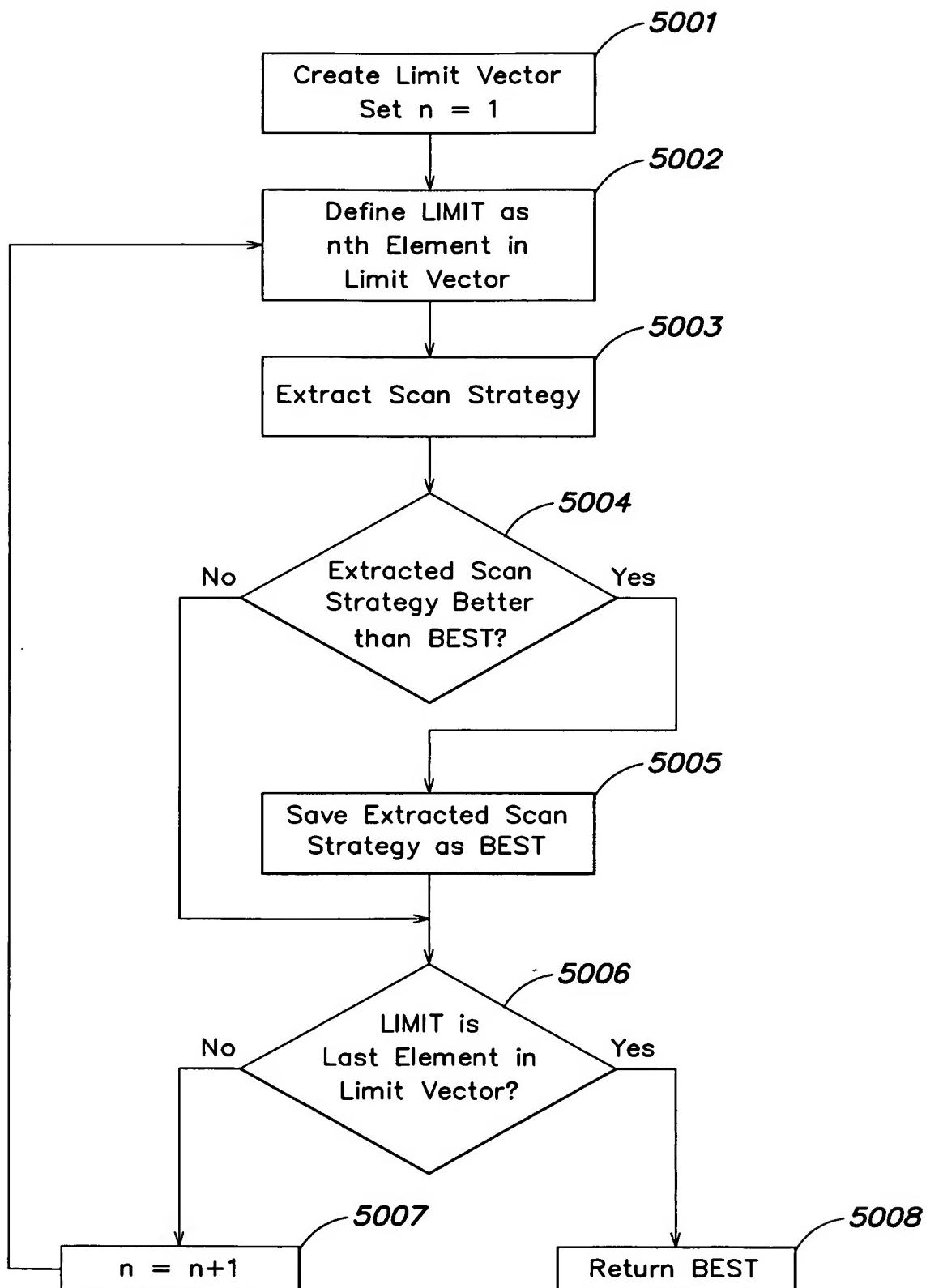


FIG. 15

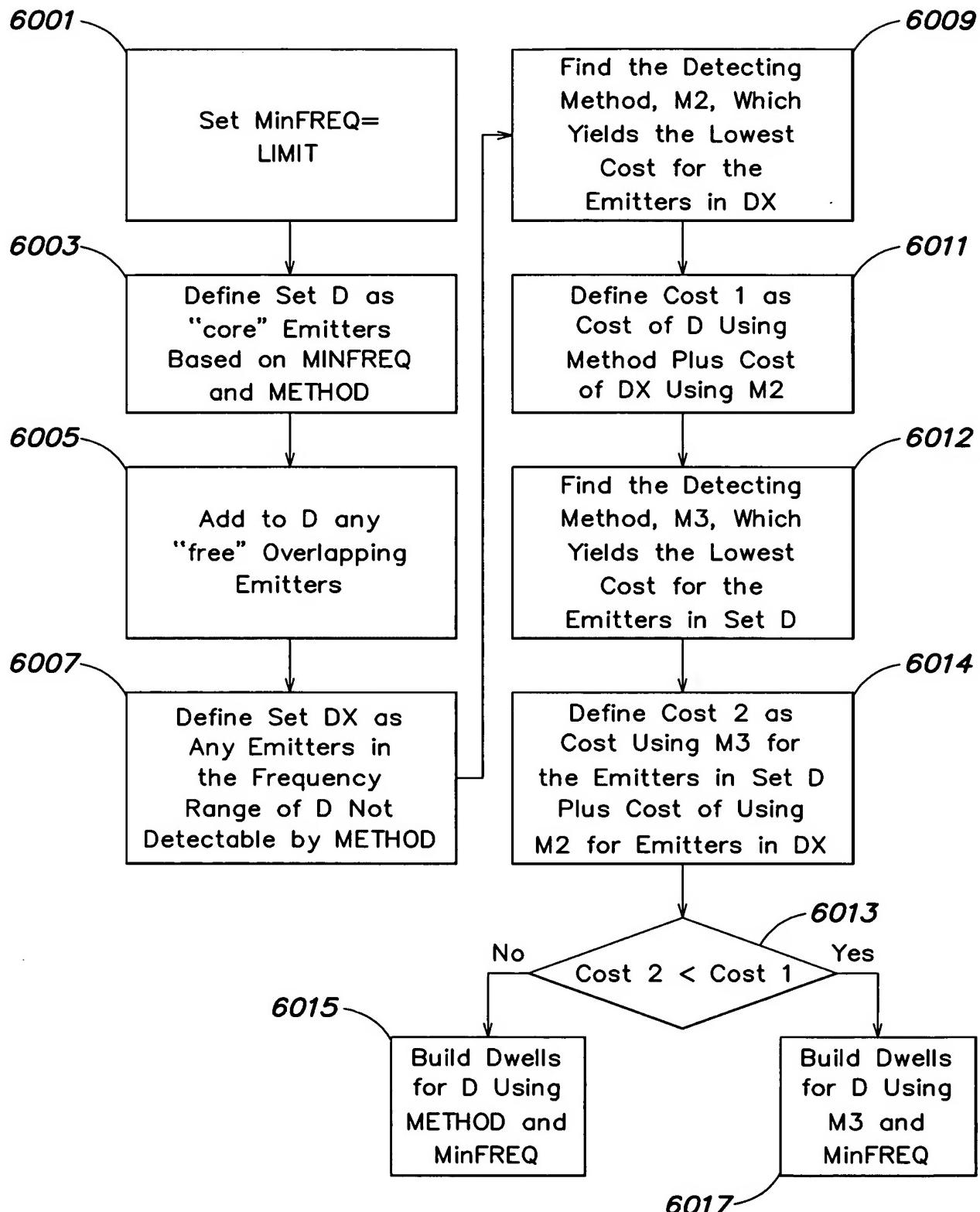


FIG. 16

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

Name	RF Min	RF Max
E1	1100	1200
E2	1150	1250

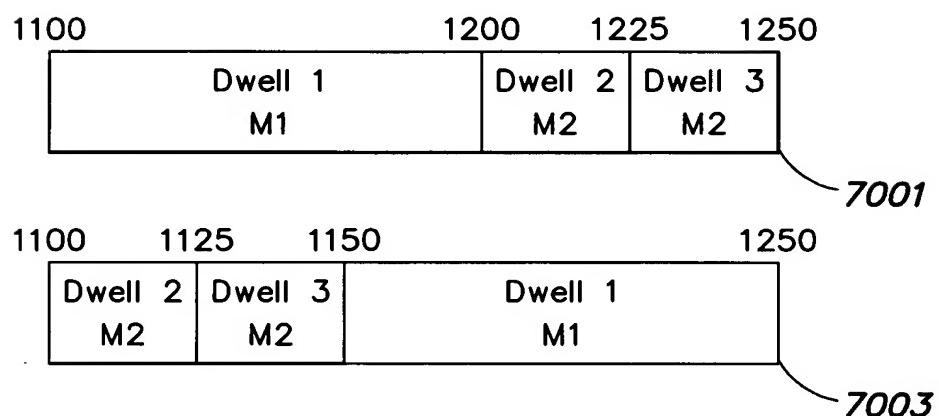


FIG. 17

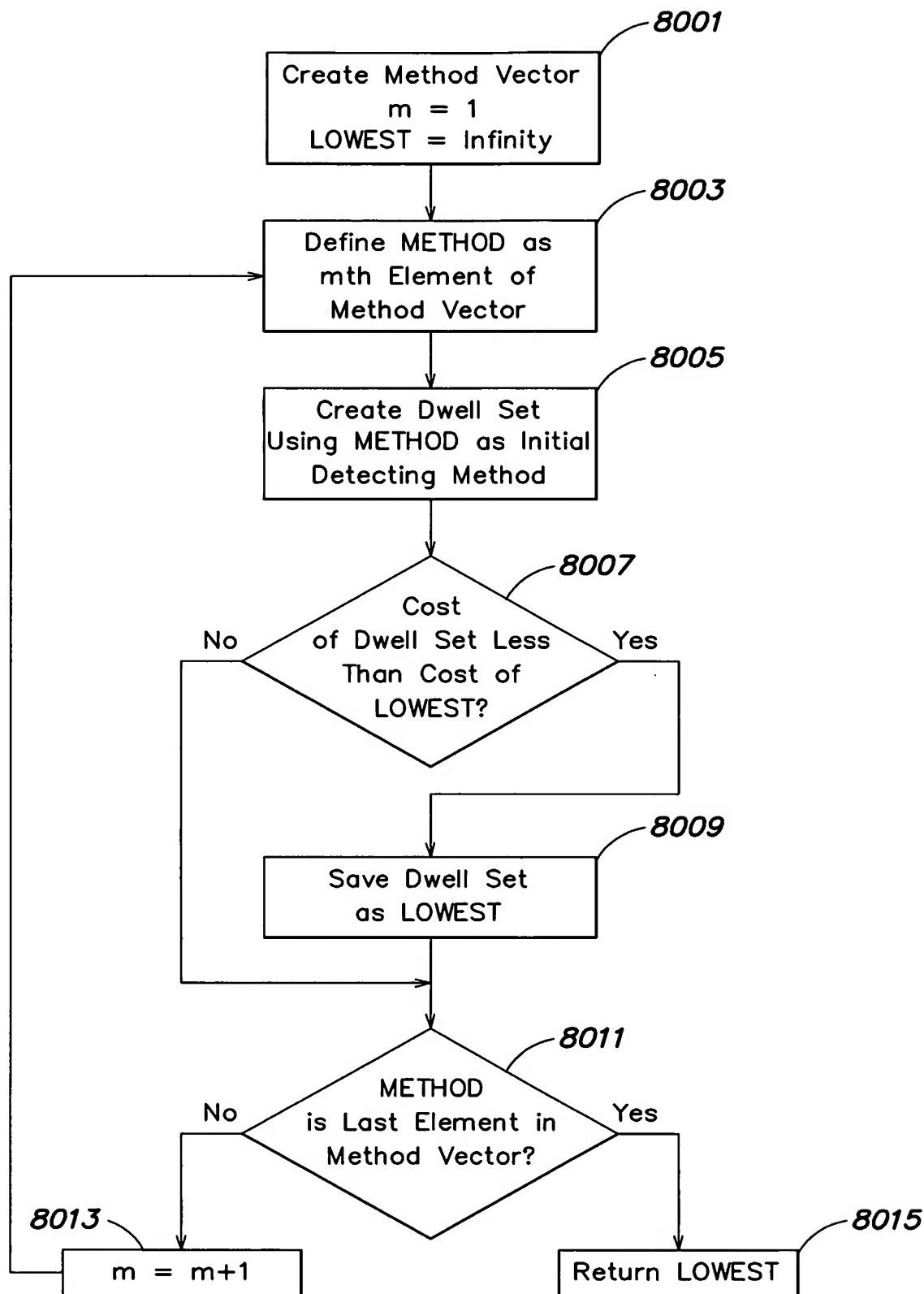


FIG. 18

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

Emitter	Dwell Duration (ms)	Revisit Time (ms)
Emitter 1	1	500
Emitter 2	2	1200

FIG. 19

Emitter	Dwell Duration (ms)	Revisit Time (ms)	Cost
Emitter 1	1	500	.002
Emitter 2	5	1000	.005

FIG. 20

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

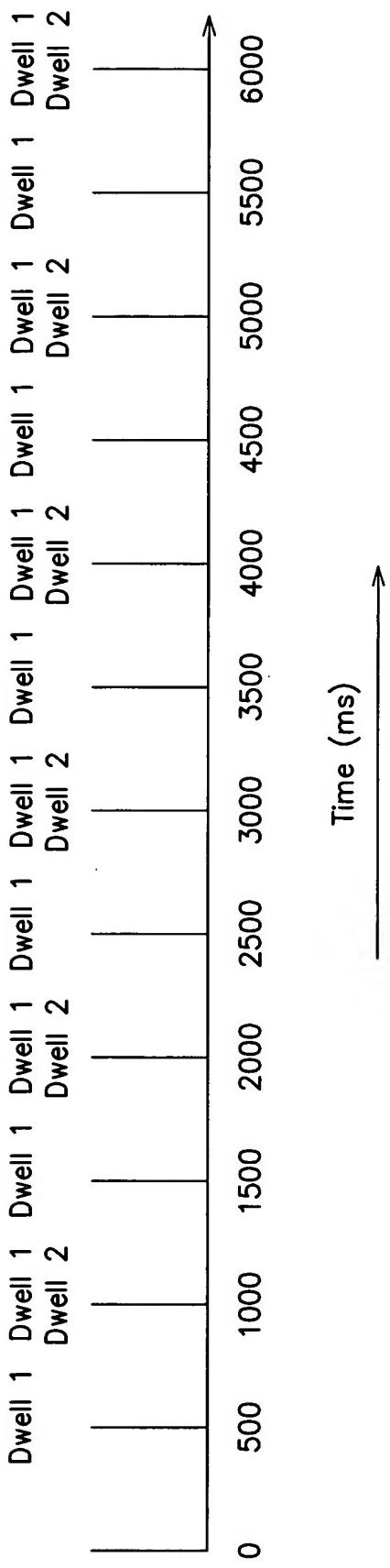


FIG. 21

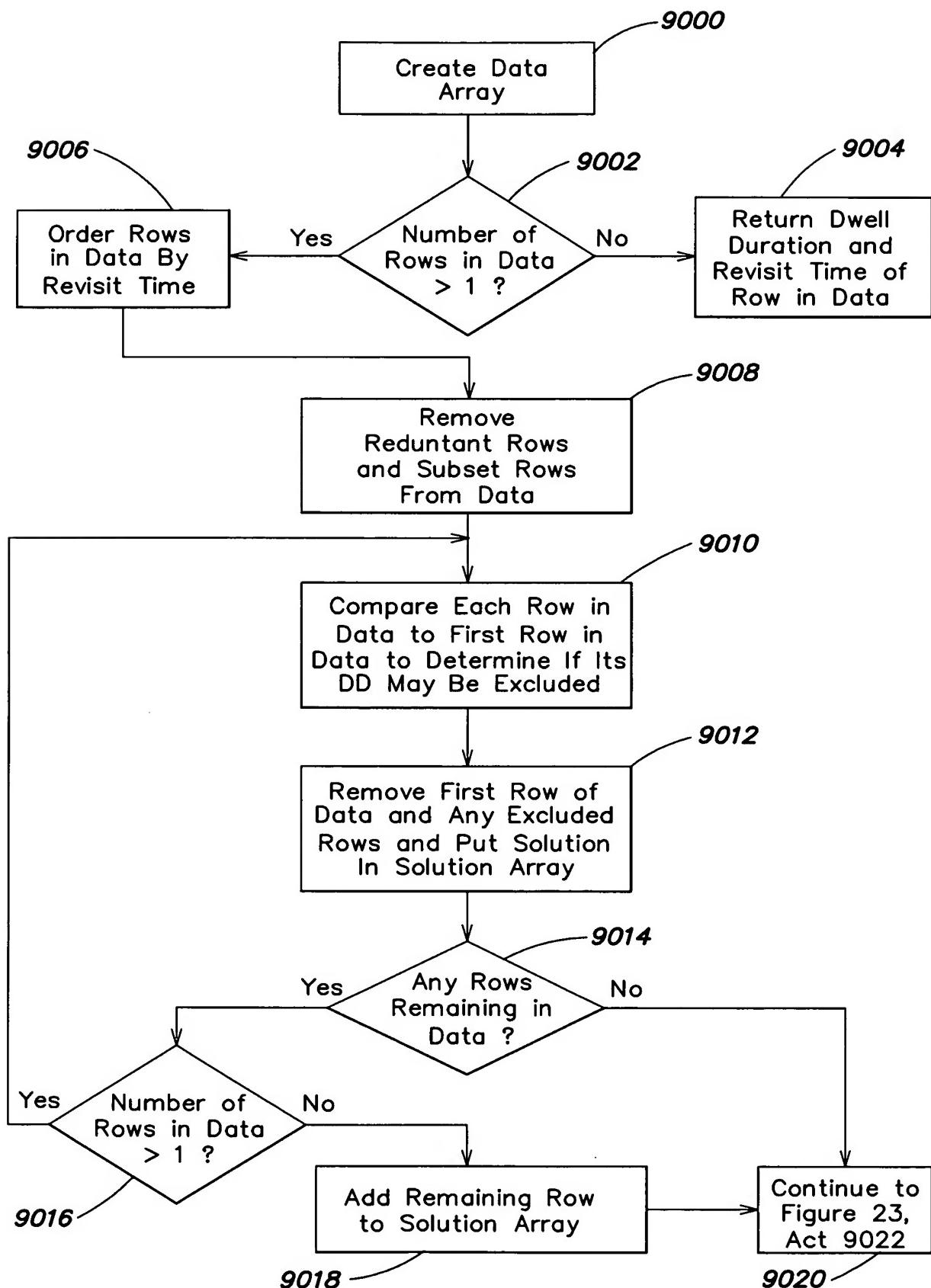


FIG. 22

System And Method For Selecting A
 Receiver Hardware Configuration To Detect
 Emitter Signals
 GOUNALIS, Anthony J.
 Serial No.: 10/675,644
 Docket No.: L0562.70037US00

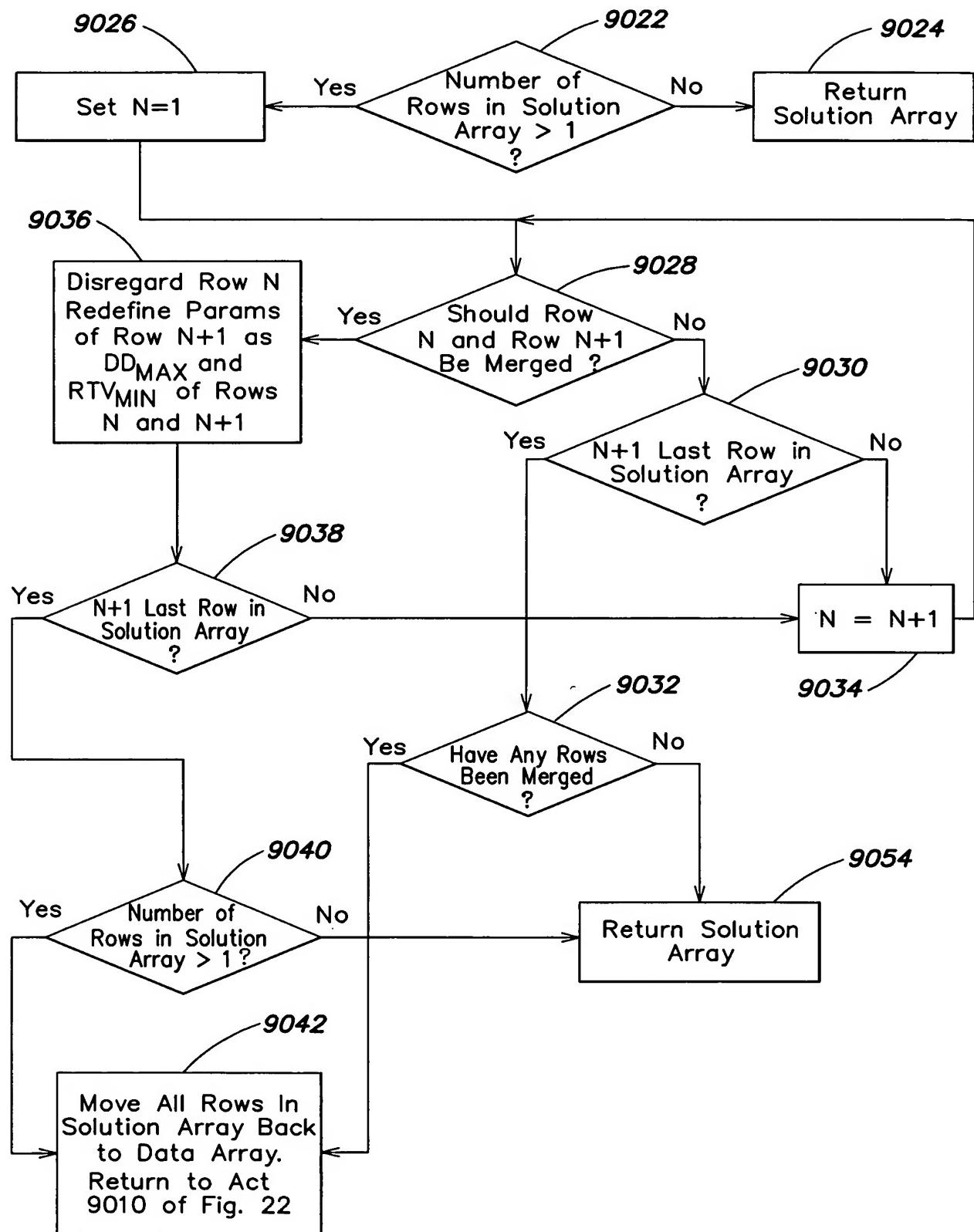


FIG. 23

System And Method For Selecting A
 Receiver Hardware Configuration To Detect
 Emitter Signals
 GOUNALIS, Anthony J.
 Serial No.: 10/675,644
 Docket No.: L0562.70037US00

FIG. 24A

Data			
MDT	EDT	RVT	
3.05	17	2868	
3	19	2000	
3	19	2000	
1	7	500	
2	9	700	
2.3	11	800	
0.5	3.5	1000	
3	19	2000	
2.3	11	800	
0.5	3.5	1000	

FIG. 24B

Data			
MDT	EDT	RVT	
3.05	17	2868	
3	19	2000	
3	19	2000	
1	7	500	
2	9	700	
2.3	11	800	
0.5	3.5	1000	
3	19	2000	
2.3	11	800	
0.5	3.5	1000	

FIG. 24C

Data			
MDT	EDT	RVT	
1	7	500	
2	9	700	
2.3	11	800	
3	19	2000	
3.05	17	2868	
3	19	2000	
3.05	17	2868	

FIG. 24C

FIG. 24B

FIG. 24A

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

Data			Solution		
MDT	EDT	RVT	MDT	EDT	RVT
2	9	700	1	19	500
2.3	11	800	2	11	700

Data			Solution		
MDT	EDT	RVT	MDT	EDT	RVT
2	9	700	1	19	500
2.3	11	800	2	11	700

FIG. 24D

FIG. 24E

Solution		
MDT	EDT	RVT
1	19	500
2	11	700

FIG. 24F

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

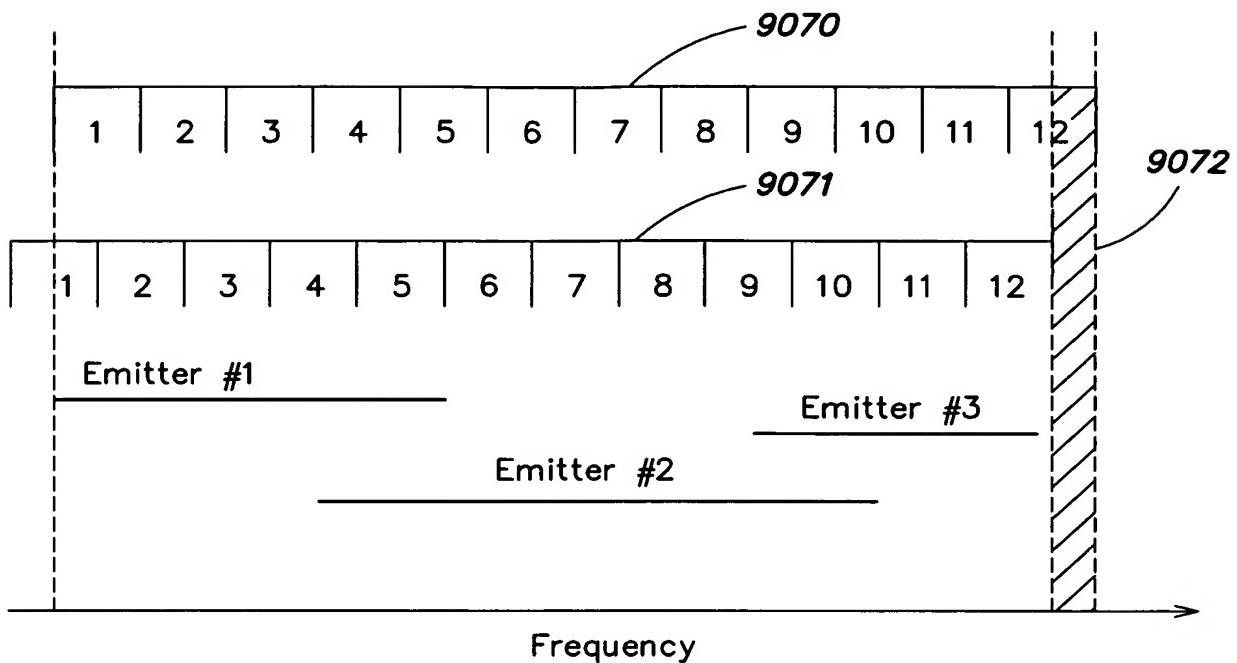


FIG. 25

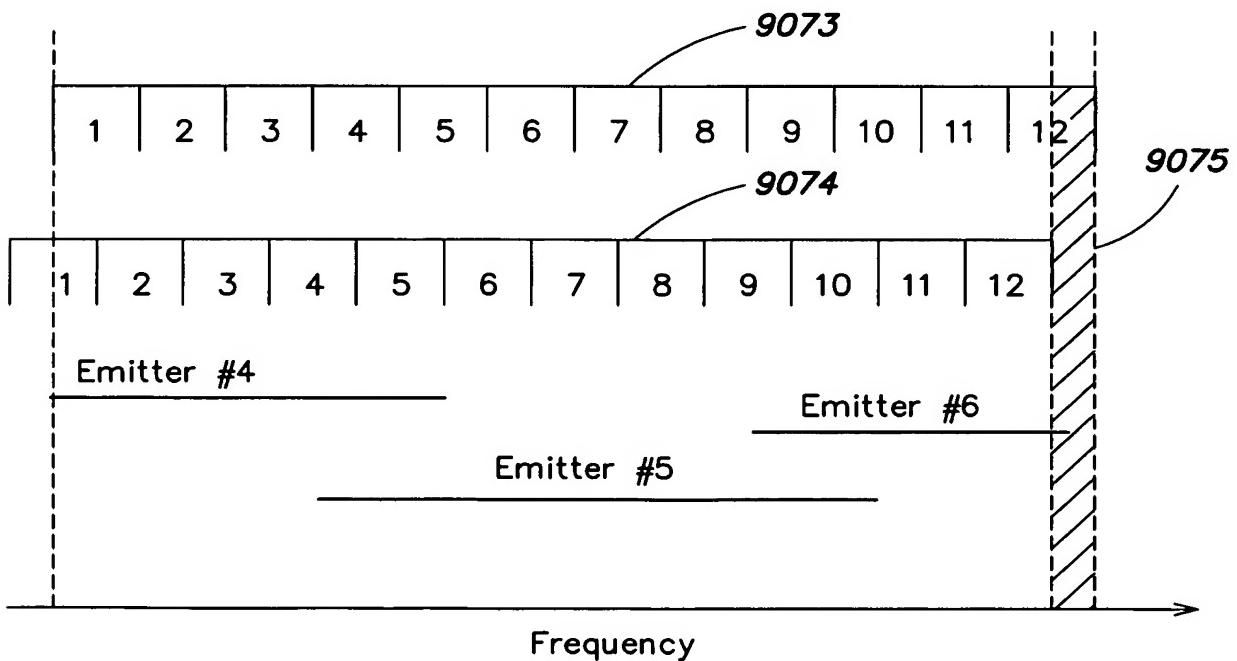


FIG. 26

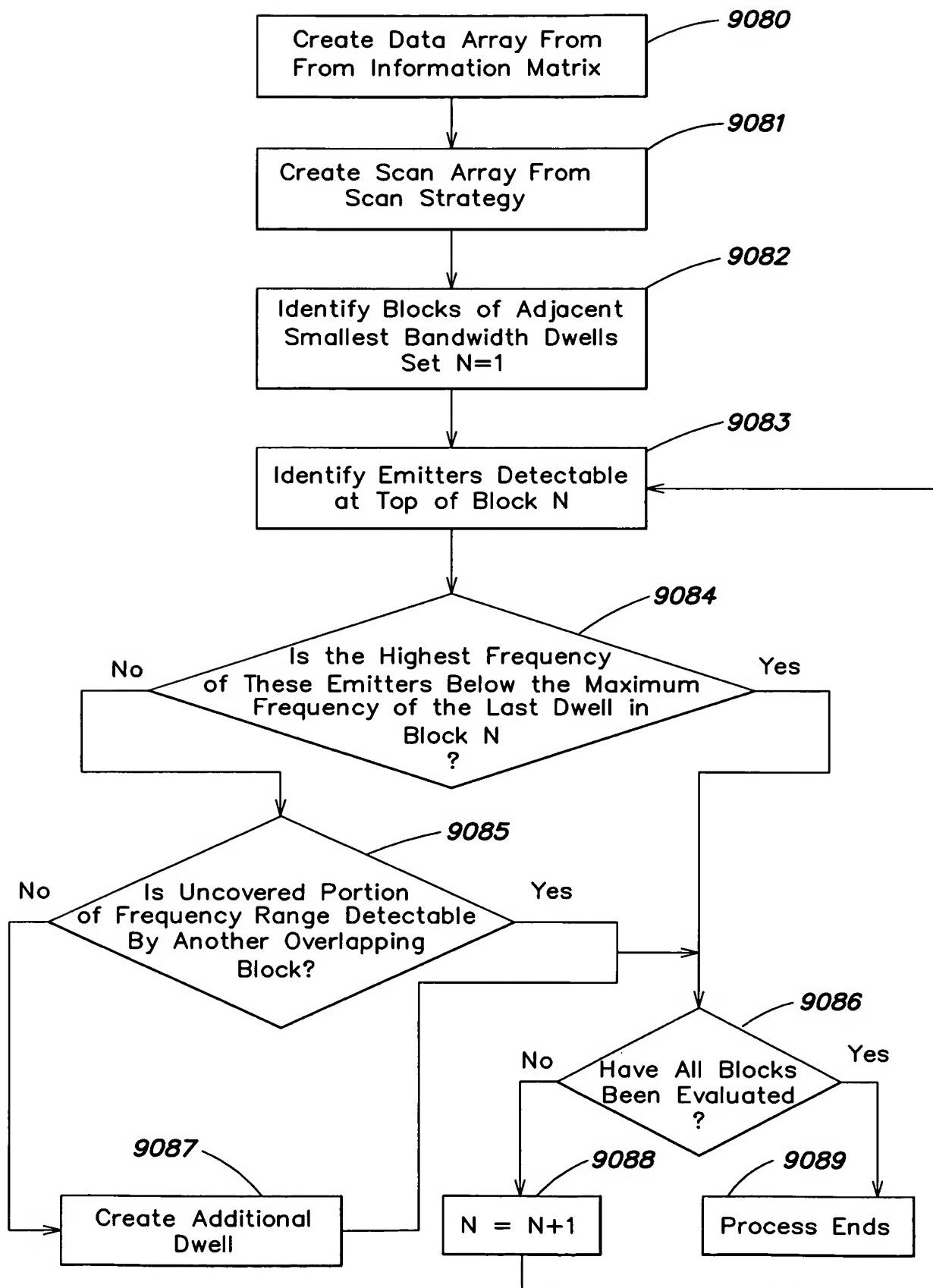


FIG. 27

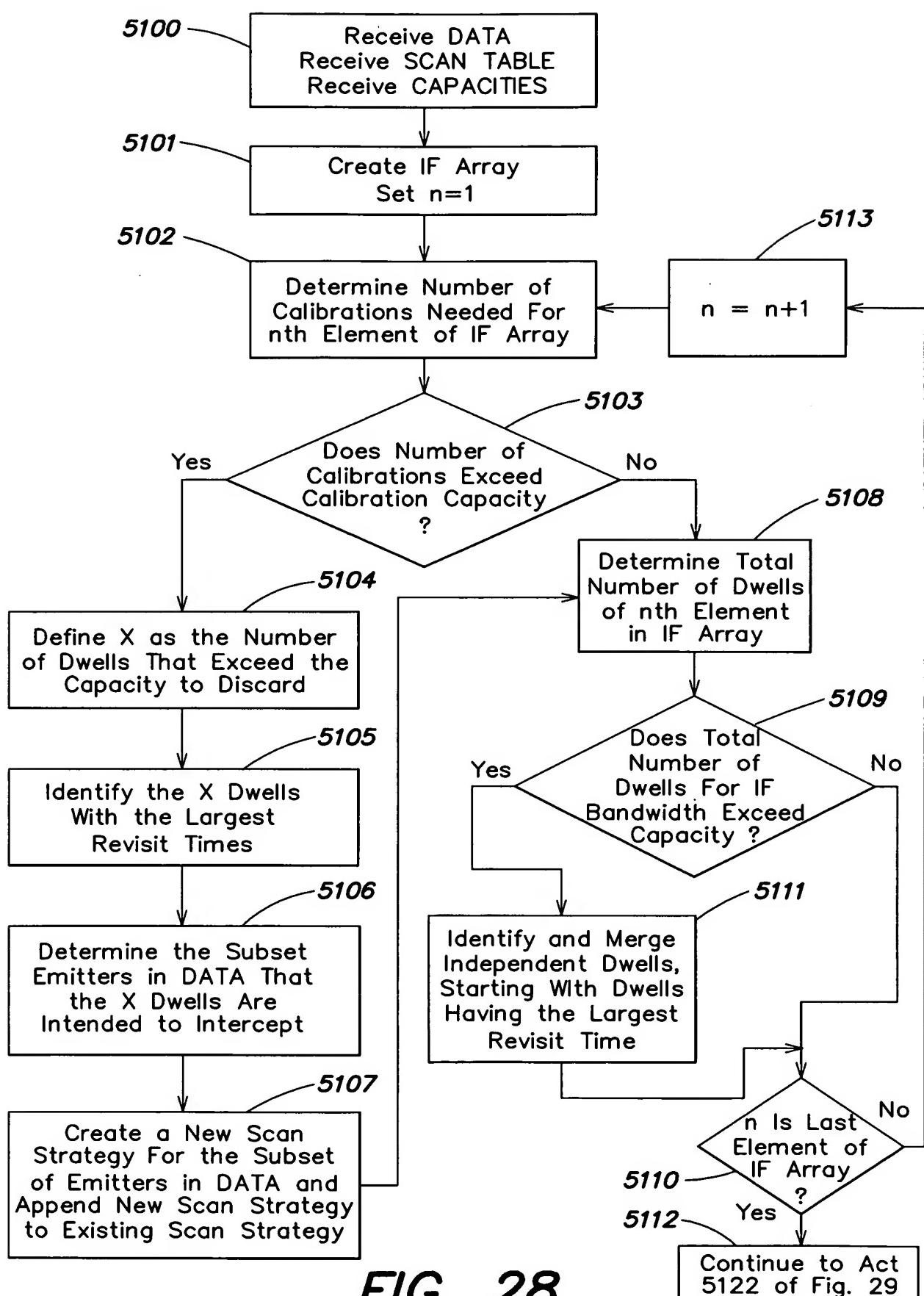


FIG. 28

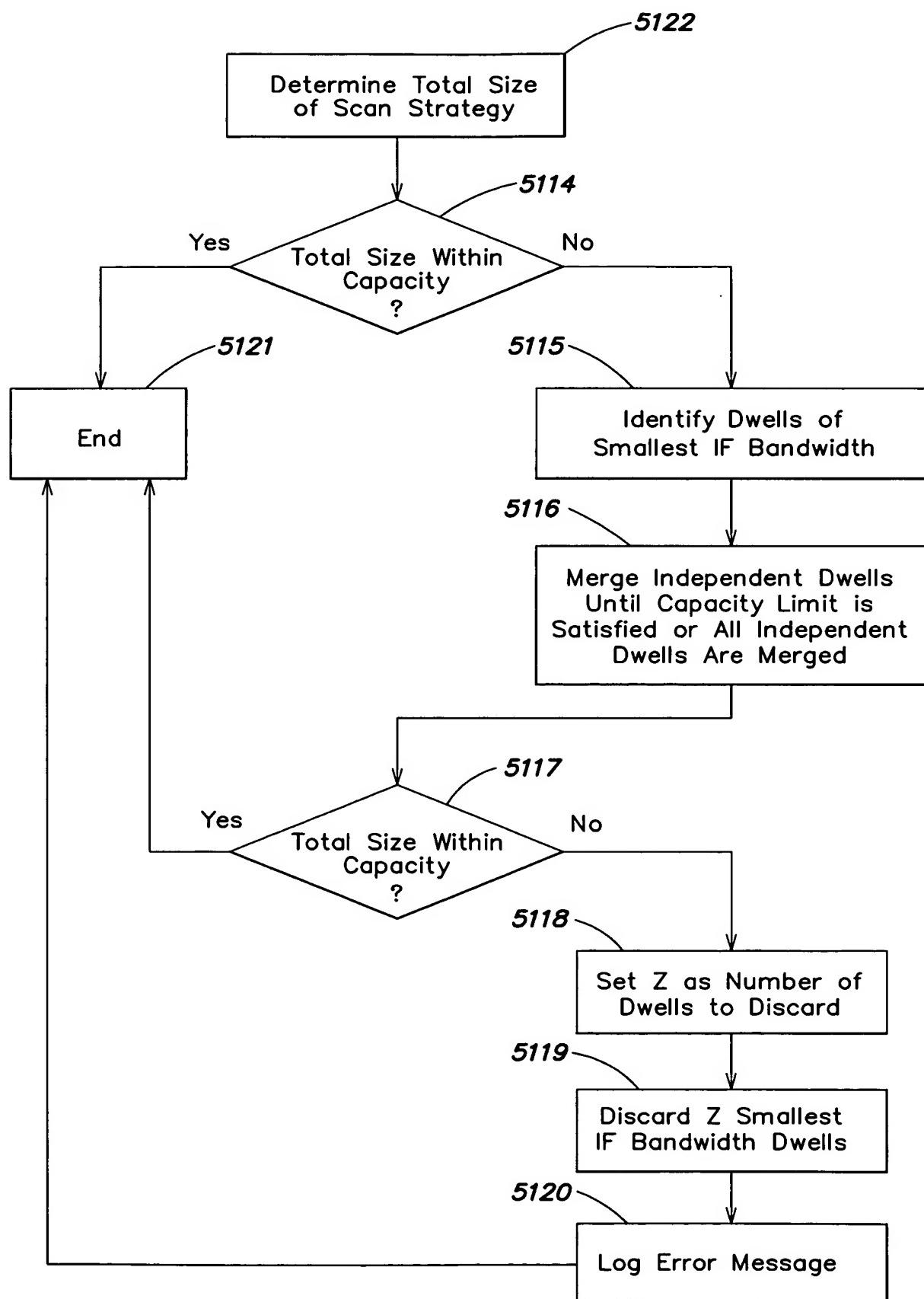


FIG. 29

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

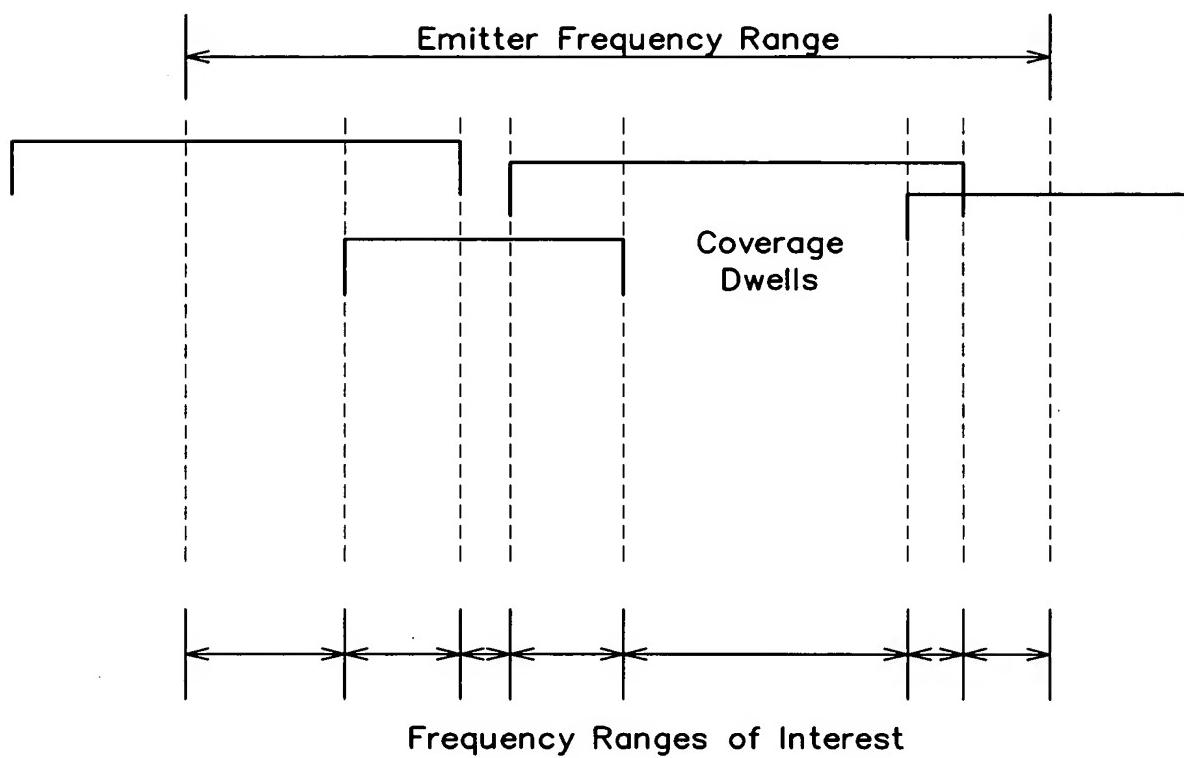


FIG. 30

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

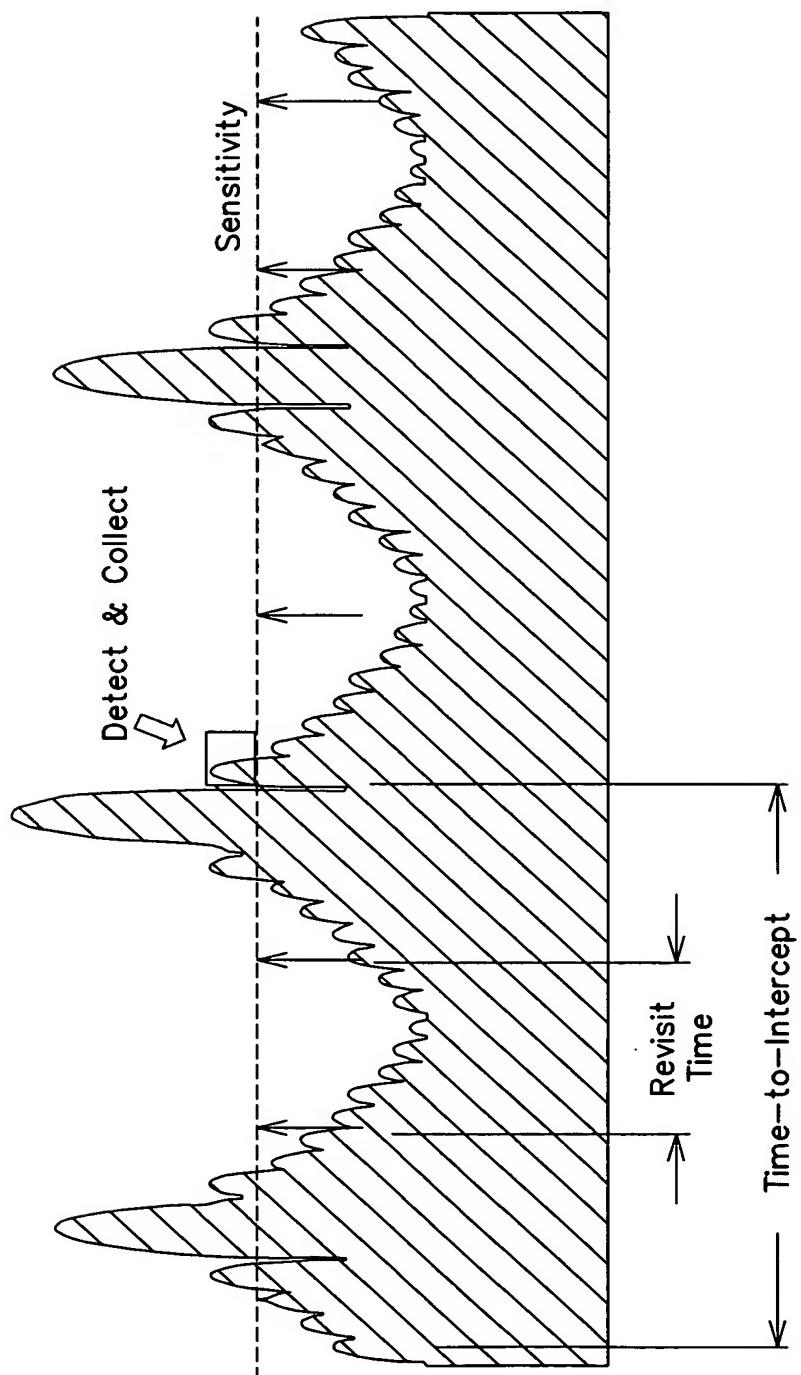


FIG. 31

System And Method For Selecting A
Receiver Hardware Configuration To Detect
Emitter Signals
GOUNALIS, Anthony J.
Serial No.: 10/675,644
Docket No.: L0562.70037US00

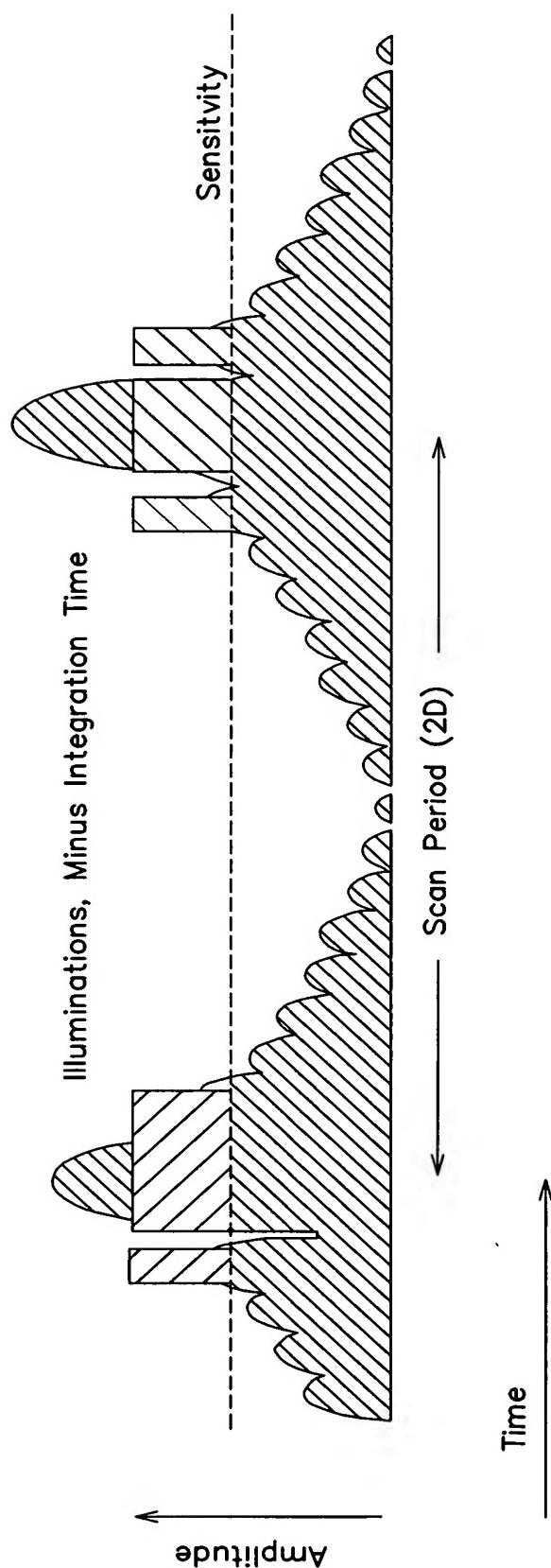


FIG. 32